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1. The meeting of the Fourth International Photobiological Congress was organized into several symposia and a number of specialized sessions. The former were designed more or less for general orientation. The major address "Light and Life" was given by Professor Dr U J Koningsberger, Nieuwe Gracht 187, Utrecht, Netherlands, who surveyed the basic problems in light research from photosynthesis and photoperiodism in plants to effects on animals. Light effects in insects, mainly on physical development and sexual behavior, were considered by Dr A D Lees, Zoological Department, Downing Street, Cambridge.
2. An interesting presentation was that of (fnu) Rowan (Alberta) who discussed the influence of light on migratory and sexual behavior of birds. Annual migration and gonadal changes are related to the relative lengths of night and day, not to temperature or other climatic conditions. Another cycle thought to be dependent on light is the 10 year cycle of abundance of certain vertebrates. Rabbits, for example, appear in large numbers at 10 year intervals and are relatively scarce in the interim in certain parts of the Northern Hemisphere. It was suggested that this phenomenon might be related to cyclic changes in available U.V. and hence in vitamin D.

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3. Other symposia papers were concerned with the photolysis of H_2O_2 and its effect on nucleic acids, U.V. microspectrophotography and effects of nonionizing radiations on bacteriophage-bacteria complexes and on skin and related structures. Of interest to those working in the general area of radiosensitivity was the paper by Dr F H Sobels, Genetisch Instituut, Stationsstrat 9, Utrecht, who found that cyanide, azide, or formaldehyde pretreatment increased the yield of sex-linked lethals in X-irradiated (300 r) drosophila. KCN alone was without effect in contrast to its mutagenic action in neurospora and bacteria.
4. An excellent paper, illustrative of the potentialities of microspot irradiation, was read by Professor A Von Muralt, Buhlplatz 5, Berne, Switzerland, who used a microbeam of monochromatic U.V. to study effects of irradiation of single myelinated nerve fibers. Exposure of the internodal area led to nonspecific effects since most of the energy was absorbed in the myelin sheath. However, irradiation of the nodes of Ranvier resulted in striking effects on the threshold for nerve excitation and on the form of the action potential. The excited node was more sensitive than the resting node. The threshold for excitation showed a time-intensity reciprocity and a strong dependence on wave length.

On file in the CIA Library are the following:

"Preprints of Papers to be Read at the Radiobiology Symposium", August 30 - September 1, 1954, Universite de Liege, Belgium, Professor E M Bacq.

"Congres International de Photobiologie" Program, 23 - 28 Aug 54.

"Symposium of Radiobiology of Liege" Program, August - September 1954.

Paper entitled, "Mechanism of Mutation Production in Microorganisms", by Howard B Newcombe, Atomic Energy of Canada Limited, Chalk River, Ontario.

Paper entitled, "Phosphorylating Activity of Mitochondria after Total Body Irradiation", by D W van Bekkum, Medical Biological Laboratory of the National Defence Research Council, T.N.O., Rijswijk, Netherlands.

Paper entitled, "Cysteamine-cystamine: the possible mechanism of the protective action against ionizing radiation" by Eldjarn, Norsk Hydro's Institute for Cancer Research, The Norwegian Radium Hospital, Oslo, Norway.

Paper entitled, "Physico-chemical methods of protecting against ionizing radiations" by Peter Alexander, Department of Chemistry, Imperial College of Science and Technology, London.

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